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By-Willems, Edwin P.

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Two field studies of high school students' sense of obligation to nonclass school activities are reported. "Sense of obligation" is conceived of as mediating some relations between the student and the school environment and is defined as a personal feeling of "I ought to..." or "I must...," i.e., a personal constraint, with reference to attending and helping with group activities. In 1961, (N=40) and 1965 (N=80), samples of marginal (poorly suited) and regular (better suited) students in small and large schools were interviewed concerning "reasons for or pulls toward" attending selected nonclass activities, and responses were coded into categories indicating sense of obligation. Marginal students in small schools reported as much sense of obligation as regular students, while marginal students in large schools reported little, if any. Theoretical and metholological implications are discussed. Tables and charts summarize the data. (NH)

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SENSE OF OBLIGATION TO HIGH SCHOOL ACTIVITIES AS RELATED TO SCHOOL SIZE AND MARGINALITY OF STUDENT

EDWIN P. WILLEMS
Rice University

2 field studies of high school students' sense of obligation to nonclass school activities are reported. Sense of obligation is conceived as mediating some relations between student and school environment, and is defined as a personal feeling of "I ought to . . ." or "I must . . .," i.e., a personal constraint, with reference to attending and helping with group activities. In 1961 (N = 40) and 1965 (N = 80), samples of marginal (poorly suited) and regular (better suited) students in small and large schools were interviewed concerning "reasons for or pulls toward" attending selected nonclass activities, and responses were coded into categories indicating sense of obligation. Marginal students in small schools reported as much sense of obligation as regular students, while marginal students in large schools reported little, if any. Theoretical and methodological implications are discussed.

Loyalty, commitment, individual responsibility, or what is here called "sense of obligation," all refer to a set of dispositions that parents, teachers, and group leaders commonly hope children will acquire during their developmental sequences. The concept, sense of obligation to school activities,

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grew out of an earlier study (Willems, 1964a) in which high school juniors were asked in personal interviews, and with reference to selected nonclass activities, "What, if any, were for you real reasons for or pulls toward attending?" Responses to this standardized query were codable into three general classes. One class, called "*own* forces toward participation" (Willems, 1964a; Willems & Willems, 1965), indicated the students' own desires, wishes, and attractions to attend the activities, for example, "I wanted to go," "I like to dance." The second class, called "*induced* forces toward participation," indicated clear and explicit external pressures to attend, or feedback from the environment encouraging attendance and discouraging nonattendance, for example, "The homeroom teacher talked me into it," "I was required to go," "We had to pay a fine if we didn't go." These two classes were of primary theoretical interest at that time. The remaining responses, less clearly specifiable, were seen as residual and uncodable, and only later did it become apparent that they indicated a ubiquitous personal disposition to attend and participate in school activities, that is, *sense of obligation* to school activities. The present paper reports the analysis of those data and a replication of the procedures 4 years later.

Sense of Obligation

As it is used here, sense of obligation is a personal feeling of "I ought to . . ." or "I must . . ." with reference to attending, participating in, or helping with a group activity, with the stipulation that the personal feeling or disposition be reliably identifiable in a response protocol. Sense of obligation has an external social referent in the form of an activity or group, but the emphasis here is upon the subjective side, upon the person's report of his obligation or commitment, in which he feels that his attendance, participation, and help are required for the success or continued functioning of the activity or group. For example, when a student reports, "I should help with the magazine sale; the class needs money," his report reflects the social referent (the magazine sale) and his feeling that he *ought* to take part for the good of the class, that is, he feels a sense of obligation.

Emile Durkheim devoted much of his thought and writing to the emergence of "subjective sense of obligation," or simply, "sense of obligation" (see Parsons, 1949, especially pp. 376–408). For Durkheim, although it was an important concept for explaining the constraint of, and obedience to, social norms in a society, sense of obligation was implicit, subjective, and too diffuse to measure directly and empirically. Although he speculated about the conditions of sense of obligation, Durkheim did not specify just what kinds of social, environmental, or personal factors influence it. Thus, although the present studies did not derive from Durkheim's theory, they can be seen as attempts to study one set of conditions and correlates of sense of obligation that Durkheim never made clear. Further comments con-

cerning possible relations to Durkheim's thinking will be made in the discussion.

Environment and Persons

The more immediate theoretical context for the present studies is an amplification of Barker's (1960; 1964) theory concerning the relations between school size and the behavior and experience of students. The argument goes as follows.

For a given period of time, such as a semester, and for a given environment, such as a school, two variables can be specified: (*a*) the number of activities occurring, and (*b*) the number of students available to participate in the activities. The number of available students (S), relative to the number of activities (A), is an attribute of the institutional environment quantifiable in terms of the ratio, S/A.

The presence and participation of students are necessary conditions for the survival and continued functioning of school activities; without participants, activities will cease to function. Viewed from the level of the activities, the issue is one of maintaining harmony or fit between (*a*) the needs of activities, that is, tasks to be performed and obligations to be filled, and (*b*) the behavior of the available participants. Conceptually, the mechanism that maintains this harmony is feedback from the environment to potential participants encouraging participation and discouraging nonparticipation in the activities. The individual participant experiences this feedback in the form of external pressures, or *induced* forces (Lewin, 1951; Willems, 1964a; 1965) toward participation in activities, and these forces will increase in number as the number of potential participants, or S/A, diminishes. Willems (1964a; 1965) has reported data supporting this expectation.

The crucial step for present purposes is that, under conditions of low S/A and the impingement of many pressures or induced forces in the form of invitations, demands, exhortations, and requirements to participate, "greater functional importance" within the activity and "more responsibility" are ascribed to each participant (Barker, 1964, p. 25). The personal, subjective, dispositional accompaniment of the induced forces and ascribed functional importance and responsibility will be a heightened sense of obligation as defined above.

It is common to assume that due to differences in motives and/or abilities, which may derive from either genetic or experiential sources, some persons are better suited than others for certain tasks, responsibilities, and situations. Following Willems (1964a; 1965), in the present studies the *marginal student* is one who is relatively unsuited for school life and its activities, while the *regular student* is better suited. These labels are descriptive and represent little commitment to any particular theory of personality.

If marginal students are not only relatively unsuited for school life and its activities, but are also *seen* as relatively unsuited, then (*a*) they will receive less feedback (fewer induced forces) toward participation, and consequently, (*b*) they will report a lowered sense of obligation, and (*c*) they will participate less frequently in responsible functions than regular students.

Finally, S/A relates differentially to the two types of students. Where S/A is low and participants are in short supply, maintenance of the activities and harmony between activity needs and individual behavior will require the participation of persons who might otherwise be seen as unsuitable or marginal. Where S/A is high and the supply of participants is large, the participation of these marginal students will not be so necessary, and (*a*) they will experience little, if any, feedback; (*b*) they will report little, if any, sense of obligation; and (*c*) they will participate infrequently in the responsible functions of activities. Willems (1964a; 1965) found the strong interaction between S/A and type of student in the number of induced forces reported, and Gump and Friesen (1964) and Willems (1965) found the expected interaction in the number of activities in which students had responsible functions. The main hypotheses explored in the present studies are (*a*) that sense of obligation, a consequence of feedback to the person, is also an interactive function of S/A and type of student; and (*b*) that sense of obligation, along with the feedback, mediates between S/A and participation in activities.

One further observed property of high schools is pertinent here. Barker and Barker (1964) studied 13 northeast Kansas high schools in detail, including those in the present studies. The schools ranged in size from 35 to 2,287 students, and the Barkers found that as size of school (S) increased, the number of nonclass activities (A) also increased, but at a much slower rate. The result was that as school size increased, S/A also increased, yielding a rank-difference correlation of .97 between school size and S/A. In other words, as size increased, the number of students available per activity also increased. Thus, the expectations for S/A discussed above can also be stated in terms of school size.

METHOD

The design of both studies was orthogonal and two-by-two, with the following variables: (*a*) marginal and regular students in (*b*) large and small schools. Data on sense of obligation were obtained from 40 students in 1961 and 80 in 1965, with equal *N*s per cell in both cases. The study in 1961 included data on own forces (personal attraction), induced forces (external pressures), and sense of obligation. The study in 1965 was a replication of the earlier one, extended to include data on actual frequency, range, and depth of participation in nonclass activities.

Schools

In the 1961 phase, there was one large school with 2,287 students and four small schools ranging in size from 83 to 151 students. In 1965, there was again one large school with 2,015 students, but five small schools ranging in size from 81 to 183 students. All schools were located in the same northeast Kansas area. Students in their junior years were Ss. Table 1 summarizes the numbers of juniors and numbers of nonclass activities open to juniors during a standard semester for both studies. From the S/A column in the table it can be seen that in both cases the large school had between seven and nine times as many juniors per activity as the average of the small schools.

TABLE 1

NUMBER OF JUNIORS (S), NUMBER OF NONCLASS ACTIVITIES (A), AND S/A FOR 1961 AND 1965

	N of Juniors	*N* of Activities	S/A
Large school:			
1961	794	189	4.20
1965	702	211	3.33
Small schools (average):			
1961	22.7	48.5	.47
1965	26.4	61.2	.43

Subjects

The procedure for preselecting marginal and regular junior students was entirely empirical, and was identical for both studies. From published research on factors that characterize students who do not complete high school (see Thomas, 1954), the following profile was selected as predictive of a tendency to drop out of school: (*a*) IQ below 99, (*b*) two grades of "D" or lower the previous semester, (*c*) father in a nonprofessional and nonmanagerial occupation, (*d*) father who did not finish grade 10, and (*e*) mother who did not finish grade 12. This profile was assumed to identify students who were poorly suited for school life; they were marginal students for the studies. Regular students had IQ's above 105, no grades lower than "C" the previous semester, father in a professional or managerial occupation, and father and mother who finished grades 10 and 12, respectively.

Sampling pools of marginal and regular students were identified from school records. Final sampling involved assigning serial numbers to the

juniors so identified, and selecting, without replacement, equal numbers of males and females for each of the four cells in the design: small school regular, small school marginal, large school regular, and large school marginal. Equal numbers of males and females were selected because Gump and Friesen (1964) observed sex differences in rates of actual participation in activities. Forty *Ss*, 10 per group, were selected in 1961, and 80 *Ss*, 20 per group, were selected in 1965.

Activities

Surveys were made of all the nonclass activities available to the selected juniors during the period of one semester. From these surveys, activities were chosen from each of the schools so that each activity finally chosen had as close a counterpart as possible in all the schools. The selected activities were all voluntary, that is, attendance was not required, and they

TABLE 2

FIVE ACTIVITIES IN EACH SCHOOL FOR WHICH *Ss* REPORTED SENSE OF OBLIGATION

SMALL SCHOOLS (1961)					LARGE SCHOOL (1961)
A	B	C	D	E	
Home basketball game	Home basketball game	Home basketball game	Home basketball game	...	Home basketball game
Post-game dance	Post-game dance	Home-coming dance	Post-game dance	...	Post-game dance
Junior play	Junior play	Junior play	Junior play	...	Talent show
Magazine sale	Magazine sale	Hat sale	Junior car wash	...	Xmas card sale
Pep club outdoor rally	Carnival & chili supper	Pep club parade	Band parade	...	Home-coming parade

SMALL SCHOOLS (1965)					LARGE SCHOOL (1965)
Home basketball game	Home basketball game	Home basketball game	Home basketball game	Home basketball game	Home basketball game
Home-coming dance	Halloween dance	Home-coming dance	Home-coming dance	Home-coming dance	Home-coming dance
Junior play	Junior play	Junior play	Junior play	Christmas program	Junior play
Magazine sale	Trash haul	Car wash	Car wash	Magazine sale	Car wash
Outdoor pep rally	Band parade	Home-coming rally	Home-coming parade	Football bonfire	Home-coming parade

had all occurred at least once during the standard semester. Table 2 shows the activities chosen for each of the schools in 1961 and 1965. Although in some cases superficial similarities break down, most of the activities across any given row of Table 2 are similar in type or variety.

Gathering and Coding of Data

One interviewer, the same throughout the period of each study, met the selected Ss in standardized individual interviews. Following introductory remarks about the ubiquity of nonclass activities, the following data were obtained.

One selected activity was mentioned at a time, and S was asked the following simple open-ended question about the activity: "What, if any, were for you real reasons for or pulls toward attending this activity?" The Ss were asked to report such "reasons or pulls" whether or not they had in fact attended. Complete, verbatim records were taken of Ss' responses, which included a wide array, for example, "Those things are fun," "My Latin teacher talked me into it," "I like to dance," "I had to; they needed girls," "It sounded interesting," "We were all expected to go."

The set of categories indicating sense of obligation, identical for both studies, was as follows:

1. Statement of felt obligation or expectation to participate in an activity. Includes the general "I should," or "I ought to . . ." for example, "We all ought to take part," "Band members were expected to go," "I felt I should."

2. Statement of general loyalty, commitment, or responsibility to the group or groups sponsoring the activity. Restricted to general statements (excludes specific type of support or help) for example, "It was a junior class activity, and I'm a junior," "The least we can do is support the school," "To support the class."

3. Statement of more specific obligation to support, help, or aid in maintaining the activity or the sponsoring group, for example, "The treasury needed money," "I thought it would bring the class closer together," "To uphold the name of the school," "They had so few girls already."

4. Statement of previously determined duty, job, involvement, or responsibility in the activity or group, for example, "I was in the skit," "I was in charge of it," "I was responsible for the money."

5. Statement not codable into categories 1 through 4, for example, "I like dances," "The Latin teacher talked me into it," "They have two a year."

For the study in 1961, two independent judges, neither of whom was involved in the planning or hypotheses of the study, analyzed unlabeled protocols of both large- and small-school Ss. One-fourth of the protocols were exchanged for a check of agreement, and the two judges obtained 84

per cent agreement on the placing of specific responses into specific categories. The two judges and the investigator found that most of the disagreements resulted from misunderstanding of American high school students' language on the part of one judge, a native of Turkey.

In 1965, two judges, the investigator and an assistant who had no prior knowledge of the study or its expectations, coded 25 per cent of the responses for agreement. Agreement was 92 per cent on the placing of specific responses into specific categories, including category 5, and 98 per cent on placing responses into categories 1 through 4 as against category 5. The assistant then coded all responses, unlabeled as to schools or students.

The total number of responses coded into categories 1 through 4, summed across the five activities, was an S's sense-of-obligation score. Thus, corresponding to the intuitive definition mentioned earlier, magnitude of sense of obligation was operationally defined by an external referent (a specific activity), the interview question, and coding categories delimiting a subset of the students' responses concerning the activity.

RESULTS

Figure 1 displays the mean scores on sense of obligation for regular and marginal students in 1961 and 1965. As can be seen from Figure 1,

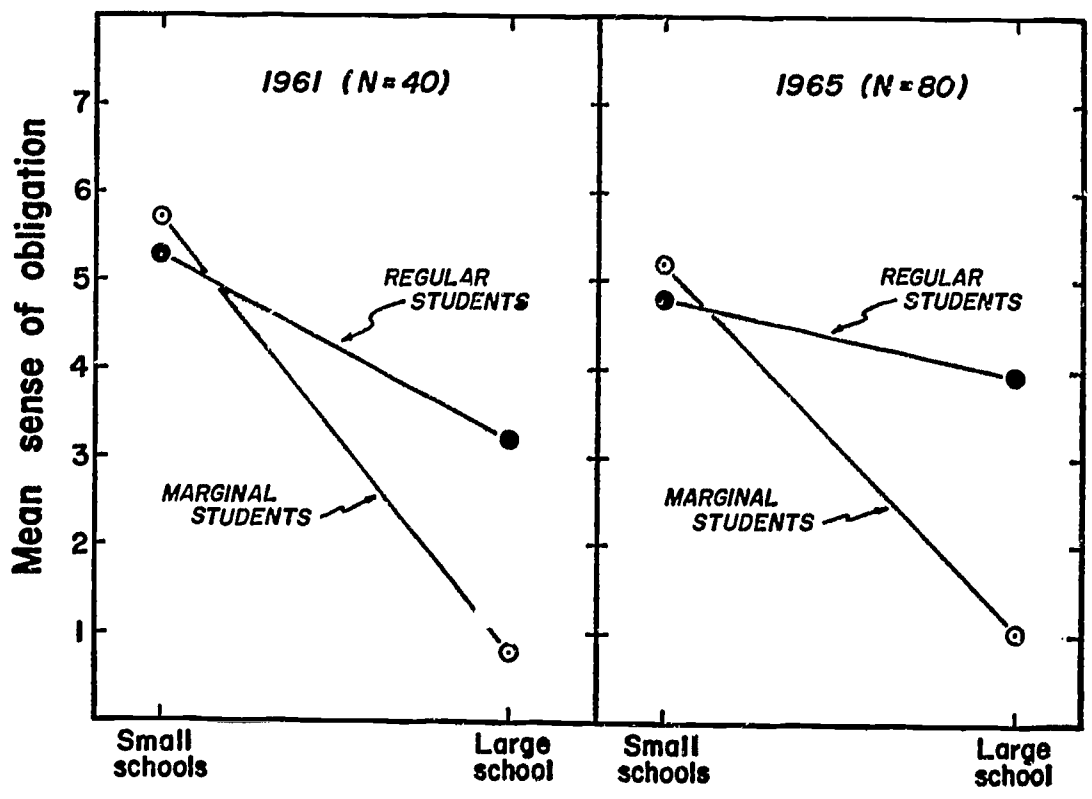

FIG. 1.—Mean numbers of responses indicating sense of obligation in 1961 and 1965.

there was strong agreement in the results of the two studies, not only in general patterns, but in terms of absolute values on the response scales. Overall, small-school students reported more sense of obligation than large-school students in both studies. In 1961 ($F = 30.32$, $p < .001$, 1 df) and 1965 ($F = 29.45$, $p < .001$, 1 df), analyses of variance yielded significant main effects for school size. However, inspection of the figure suggests that most of the school size relation was due to the differential responses of the marginal students, and the interaction statistics were significant in 1961 ($F = 4.85$, $p < .05$, 1 df) and 1965 ($F = 12.19$, $p < .001$, 1 df). In other words, as expected, the marginal students in the small schools reported as much sense of obligation as their regular schoolmates, while the marginal students in the large school were a group apart. In fact, in 1961, five of the ten marginal students in the large school reported no codable instance of sense of obligation at all; and in 1965, eight of the twenty reported none. This strong agreement of results from different samples of *Ss*, different sample sizes, 4 years apart, suggests that sense of obligation, as operationalized here, is a stable and replicable phenomenon.

It has been observed elsewhere (Gump & Friesen, 1964; Willems, 1965) that school size and type of student produce differences in the frequency, range, and depth of participation in activities. Students in small schools, including marginal students, have positions of leadership and responsibility in more activities than students in large schools, especially marginal students in large schools. Thus, it might be argued that the small-school students in the present studies were simply describing their frequent behavioral instances of leadership and responsibility and that the pattern of sense of obligation can be accounted for by the differences in participation rate. If this argument were tenable, then the observed differences in sense of obligation should disappear when controlled for frequency of participation in positions of leadership and responsibility. Data were available to test this hypothesis.

In 1961 Gump and Friesen and in 1965 Willems obtained data on the number of activities in which each *S* had positions of leadership and responsibility. Examples of such positions were chairmanship of meetings; committee membership; planning of activities; performances at athletic, dramatic, and forensic events; that is, the positions that were crucial to the functioning of activities. The number of such leadership functions, called "performances," in all nonclass activities occurring during the standard semester, was used as a control, or covariate, in analyses of covariance for the data on sense of obligation from 1961 and 1965.

Figure 2 shows the mean sense-of-obligation scores adjusted for the numbers of performances. Statistically, the main effect for school size remained intact through the adjustment in 1961 ($F = 6.46$, $p < .05$, 1 df) and 1965 ($F = 11.30$, $p < .005$, 1 df). Again, as one would expect from inspection of Figure 2, the interaction effect remained intact through the

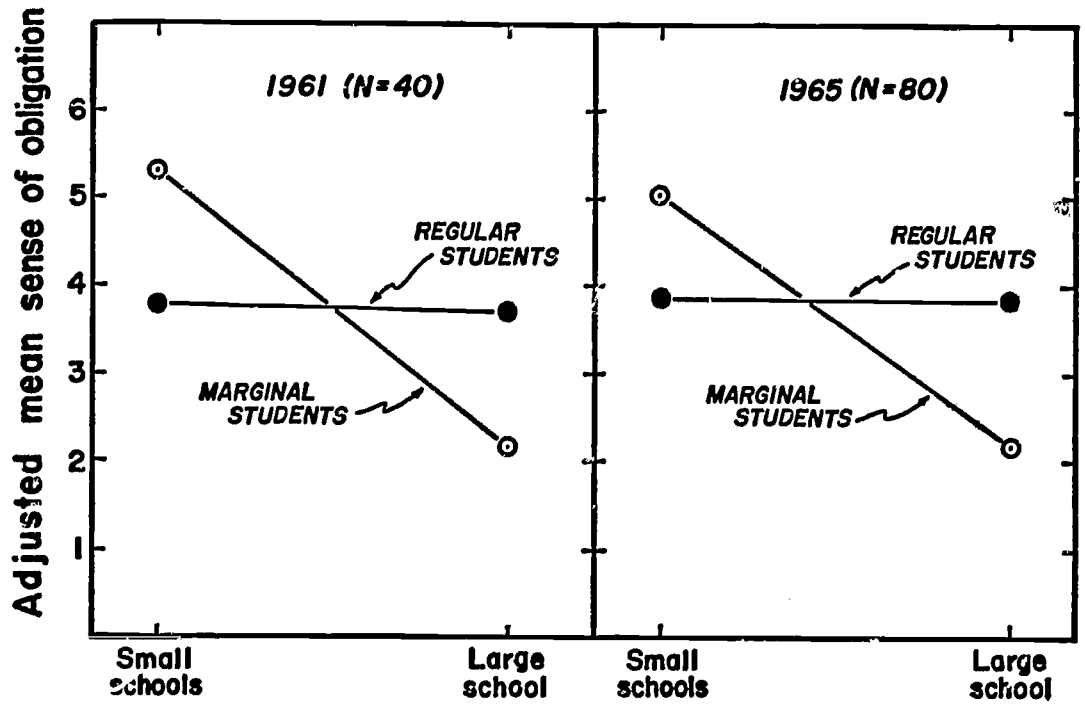

FIG. 2.—Mean numbers of responses indicating sense of obligation in 1961 and 1965, adjusted for numbers of performances.

adjustment in 1961 ($F = 15.30, p < .001, 1\ df$) and 1965 ($F = 12.93, p < .001, 1\ df$). The principal result of the adjustment in both studies was a tendency to equalize the picture for regular students in schools differing in size while leaving intact the differences between marginal students. In other words, the principal impact of school size appears to be upon marginal students.

Sense of obligation appears to be dependably and predictably related to school size and type of student, but data were available on several other correlates that further clarify its theoretical and empirical status. For the five activities used in the 1965 study, Willems (1965) has reported data on the number of own forces and induced forces each S reported toward participation, and the number of activities in which he had performances. The number of own forces, for example, "I just wanted to go," "I like to dance," "It was a chance to do something new," can be seen as an index of the degree to which the Ss were personally attracted to participate. The number of induced forces, for example, "We had to pay a fine if we didn't go," "The homeroom teacher talked me into it," "I was required to go," can be seen as an index of the degree to which they were under external pressure to participate. Table 3 shows the product-moment correlations among sense of obligation, number of own forces, number of induced forces, and number of actual performances. These data support several interpretations. First, the

TABLE 3

PRODUCT-MOMENT CORRELATIONS AMONG NUMBER OF RESPONSES INDICATING SENSE OF OBLIGATION, NUMBER OF OWN FORCES, NUMBER OF INDUCED FORCES, AND NUMBER OF PERFORMANCES (1965 *Ss*, $N = 80$)

	Sense of Obligation	Own Forces	Induced Forces	*N* of Performances
Sense of obligation.....	...	.20	.77*	.68*
Own forces.....	...	...	.13	.14
Induced forces.....	...	...	...	.58*

* $p < .01$.

nonsignificance and low correlation between own forces and sense of obligation suggests that sense of obligation is not simply a function of how much the *Ss* wanted to attend personally attractive activities. Second, the high correlation between induced forces and sense of obligation, that is, the highest in the table, suggests that sense of obligation is a function of external pressures, or feedback toward participation. Third, the relatively high correlation between sense of obligation and number of performances suggests that sense of obligation is a personal disposition that mediates between pressures to participate and actual participation. This interpretation is enhanced by the fact that the correlational sequence from induced forces to sense of obligation to performances brackets higher correlations than the direct relationship between induced forces and performances.

DISCUSSION

Two studies, 4 years apart, indicated that high school students with preselected and precontrolled similarities reported markedly different magnitudes of sense of obligation in different environments. Sense of obligation was defined as the personal feeling of "I ought to . . ." or "I must . . . ," that is, a personal feeling of constraint, with reference to attending, participating in, or helping with a group activity. Number of students available per activity, a close correlate of school size, had no marked effect upon regular students, especially when their reports of sense of obligation were statistically controlled for frequencies of actual participation in positions of leadership in activities. The picture was quite different for marginal students, selected for relatively poor suitability for school and its affairs. In the small schools, where there were relatively few students available for activities, these marginal students reported a sense of obligation that was similar in magnitude to their regular schoolmates. In the large school, the marginal students were a group apart and reported little, if any, sense of obligation. In fact, it would appear that the small-school marginal students were not

experientially and behaviorally marginal, while their large-school counterparts were a group of relative outsiders.

Several issues remain to be discussed, the first of which is the tenability of the school size hypothesis. Each investigation involved one large school, and in each case the large school was located in an urban area, while the small schools were located in small, rural towns. It might be argued that rural-urban differences, rather than school size, account for the present findings. Two sources of information bear directly on the tenability and generality of the school size explanation. One source is a study by Campbell (1964), who asked students on questionnaires about reasons for attending activities, and focused on what he called "personal responsibility" (p. 144), a concept very similar to sense of obligation. Campbell compared the numbers of responses indicating personal responsibility reported by students (*a*) in a small, locally circumscribed high school; (*b*) in a larger consolidated high school located in a small rural town; and (*c*) in a larger, locally circumscribed high school. The crucial factor in Campbell's study is that all three of the schools were located in relatively small rural towns. He found reliable differences in personal responsibility between students in the small local school and both of the two other larger schools, suggesting strong support for the generality of the school size hypothesis, and weighing against rural-urban differences as an explanation.

Another source of information concerning the tenability of the size hypothesis is the growing body of literature demonstrating effects of size of social units. In laboratory problem-solving groups (Thomas & Fink, 1963; Willems, 1964b), in commercial and industrial organizations (Indik, 1963; 1965; Porter & Lawler, 1965), and in communities (Barker, 1960; Barker & Barker, 1961; Wright, 1961), there is consistent evidence that as size, that is, number of persons, of the unit increases, punctuality, attendance, identification with the group, and other indexes of participation, decrease. All of these variables can be seen as behavioral indicators of obligation.

A second issue is the present status of the concept, sense of obligation. What is available at present is a set of operations and categories that produce a stable, replicable phenomenon. Second, it appears that sense of obligation is identifiable, specifiable, and measurable, within the limits of the procedures. Third, the procedures produce a phenomenon that seems to imbed itself in a network of predictable variables. Fourth, sense of obligation as measured here appears to make a difference in what students do; it appears to predictably mediate certain relationships between the person and his environment. Thus, Barker's theory concerning the relations among S/A, type of person, and sense of obligation, with its support in the present data, explicates one set of conditions that generate what Durkheim called "subjective sense of obligation to social norms." With the specific institutional variables, group activities, and types of students as referents, the present context is much more restricted and situational than Durkheim's societal

context, but such specificity enhances measurability and need not detract from possible theoretical articulation. For example, it is consistent with both Durkheim's view and the present adaptation of Barker's view to postulate that induced forces, or environmental feedback, (*a*) *define* the person's social obligation for him and *direct* him to it and (*b*) *inform* him of possible consequences of his actions in the form of sanctions and rewards. As a result of this definition, direction, and potential return, an internalized, subjective disposition, that is, sense of obligation, is shaped. If this mode of theorizing is tenable, then the possible cumulative, long-range personality and social learning effect of experiences in small and large groups becomes an important research question.

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